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ABSTRACT

Suicide is one of the least understood of human behaviors, especially the causes and factors associated with suicide in young children. To replicate and clarify an earlier study, which used a methodology for determining suicidal ideation in different groups of people by examining the thoughts and ideas they projected onto another, 2,386 subjects responded to stories about characters experiencing adversity. Subjects in the six studies included children, adolescents, college students, older adults, persons of low socioeconomic status, church members, community residents, mental health clients, and mental health workers. Men and women were also compared using subsamples of these populations. Results indicated that the methodology was effective in eliciting responses which reflected suicidal ideation. While 46% of the subjects projected suicidal ideation onto the characters, only 6 percent indicated that the subject would be considering any type of professional counseling. Self-destructive thinking occurred in children as young as 5 years. Results indicated differences in suicidal ideation among college students with different majors, but few differences between men and women, high and low socioeconomic groups, church and community samples, or the mentally ill and community samples. Mental health workers projected more suicidal ideation than community members, possibly reflecting their perceptions of other people rather than reported suicide rates for this group. (JAC)

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Suicidal Ideation Across Populations[1]

Presented at

The Thirtieth Annual Meeting of the Southwestern Psychological Association

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Projected Suicidal Ideation: An Introduction

Suicide is one of the least understood human behaviors. Theories, statistics, and speculations abound concerning what suicide is, why it occurs, and who is at risk; yet, we have no final or even unequivocated answers for any of these questions. An area of particular concern is our almost total ignorance regarding causes and factors associated with suicidal thinking among young children.

The purpose of the research reported in this paper was to explore a methodology which would have applicability to increasing our understanding of children's risk for suicide. A premise which served as a rationale for the research was that insight into suicidal thinking could be gained through an examination of the thoughts and ideas one projects onto a person experiencing adverse life circumstances. While this assumption is debatable, it serves as a framework for the research project undertaken. Basically, we wanted to develop a methodology which would aid us to determine at what ages and in what numbers children verbally report suicide as a possible option when they think about a person confronted with negative life circumstances.

There are a number of practical and ethical complica-

tions in relationship to research on children's thinking regarding suicide. The researchers were sensitive to the possibility that interviews with children, where they would be directly inquired as to their opinions related to suicide might lead to a situation where we introduce the concept of suicide as an option to the child. Therefore, a more indirect assessment approach was decided upon. This assessment approach utilized stories where the primary character was confronting an adverse life circumstance. The subject was then asked to indicate three things the character might be thinking about doing. If the subject projected suicidal ideation onto the characters thinking, it is assumed that suicide as a potential option is part of the subject's conceptual system. If the subject does not project suicidal ideation onto the character a contrary assumption can not be made. Still, to know at what age children project suicidal ideation with the same frequency as adults is considered valuable information. Also, feedback from this methodology should prove useful when comparing the responses of various other social and demographic groups and when comparing the responses of persons who have and who have not previously attempted suicide.

Previous research, by the senior author, regarding the usefulness of the proposed methodology for eliciting projected

suicidal ideation had revealed several significant findings. Subjects had been exposed to one of six stories which presented a character experiencing adverse life circumstances. Two stories described a teenager with a troubled home enviroment, two stories described a character presented as the same age as the subject who had experienced an accident and two stories described an elderly person who was experiencing health problems. The stories within each age pair varied only according to the sex of the main character. Chi-square analysis revealed differences in regard to projected suicidal ideation for the age of character/type of adverse circumstance dimension. Differences were also obtained in regard to whether the subject projected ideation which was problem solving oriented and/or hopeful versus ineffective or counter productive on the age of character/type of adverse circumstance dimension. Several other statistically significant differences were found. However, because the main effects they were based on were not statistically significant their replicability was questioned. Also, several qualitative findings of importance were noted(Bailey and Hernandez,1982).

A replication and clarification of the first study was deemed necessary. The following research was designed to provide this replication and clarification. That is, the study was designed to provide independent data regarding the

age of character/type of scenario dimension. Also, the study provided information concerning the degree to which the earlier findings would generalize to a younger age group of respondents, and the degree to which projected suicidal ideation differed in various other groups: the elderly, mental health clients, human service providers, highly religious persons, persons of high and low socio-economic status, according to the sex of the respondent and across various college majors.

Method

Subjects

The sample consisted of 2386 persons. The various subpopulations included in the sample are described in the individual papers which follow this introduction. Therefore, the reader interested in additional information concerning the sample is referred to the papers which follow this introduction.

Procedure

The subjects responded to one of eighteen different scenarios. The scenarios differed according to three basic dimensions: sex of character, age of character, and adverse life circumstance described. Examples of three of the scenarios for female characters of the six different age/life circumstance follow:

Ann is a very sad teenager. Her parents are al-

ways fighting---yelling and screaming at each other---and Ann hates to spend any time at home. Last week she was caught stealing and now is in trouble with the law. She's doing poorly in school, has no friends and is always feeling bad and unhappy.

Linda is a girl about your age who was riding her bike one day when a truck hit her. Now Linda has to stay in bed all the time because she can only move her head. The doctors say she'll never walk or be able to play again. Linda is very sad. She used to have a lot of friends, but now that she can't move they don't come over any more.

Mrs. Johnson is an old, old woman. She's been very sick with cancer and she's in the hospital right now. The doctors are not sure she's going to get better. For many years this old woman has been living alone. Right before she was taken to the hospital, her whole house and everything she owned burned down.

Each of the scenarios was followed by the question, "What do you believe are three things that(name of character) might be thinking about doing?" Space was then provided for the subjects written response. The scenarios were distributed so that male and female subjects responded to an approximately equal number of like and cross sex characters from each type of scenario.

Results

The subjects' responses were classified according to which of twenty categories of responses they reflected: no response, suicide, self-aggression, other directed aggression, depression, denial, escape, turning to drugs or alcohol, giving up, blind hope, seeking professional help,

turning to religion, developing a skill or hobby, making future plans, death, seeking medical help, making restitution or feeling regret, and other responses. These response classifications were further divided into effective and non-effective dimensions. Not all categorizations clearly reflected effective or ineffective response(no response, future plans, death, other responses and restitution/regrets). These responses were therefore dropped from further analysis. Nine of the responses were classified as ineffective responses(suicide, self-aggression, aggression toward others, depression, denial, escape, drugs, and alcohol, giving up, and blind hope). Six of the responses were classified as effective responses(professional help, friends, relatives, religion, skills/hobby, and medical help).

Data analysis consisted of inter-rater reliabilities and chi-square comparisons regarding the probability of projected suicidal ideation across subject and scenario classifications. Additionally, a number of comparisons were made across and with-in the effective/ineffective dimensions. The following description relates some of these findings as they relate to the data concerning the scenario dimensions. The other papers, which are attached, provide similar analyses regarding the findings as they relate to various subject characteristics(age, sex, SES,

etc.).

Inter-rater reliability for categorization of subject response exceeded 95% concordance. The age of character dimension revealed a significant difference in regard to projected suicidal ideation($\chi^2(2, N=2382)=10.76$, $p<.01$). In regard to age of character most of the variance of the subjects' responses was accounted for by the fact that they were less likely to project suicidal ideation onto elderly characters(42% projected suicide) compared to same age(47% projected suicide) or teenage(50% projected suicide). The type of adverse circumstance described also resulted in significant differences($\chi^2(2, N=2384)=24.41$, $p<.01$). Subjects were equally likely to project suicidal ideation on the accident victim(50% projected suicide) and the character experiencing trouble at home(50% projected suicide) and they were less likely to project suicide onto the cancer victim(39% projected suicide). No differences were obtained in regard to the degree to which subjects projected suicidal ideation according to the sex of the character.

Several differences were obtained within the effective/ineffective dimension according to the age of the character. Regarding the ineffective responses, the differences in projected suicide are reported above. The subjects also projected escape at differntial rates($\chi^2(2, N=2382)=50.5$,

$p<.01$) with escape projected 37% of the time for the teenager, 36% of the time for the same age character, and 21% of the time for the elderly person. Drug and alcohol responses also differed($\chi^2(2, N=2382)=31.88$, $p<.01$) with 8% projecting the teen turning to drugs and alcohol, 4% the same age character and 2% the elderly character. Blind hope also differed($\chi^2(2, N=2382)=23.50$, $p<.01$) with the same age character engaging in blind hope 17% of the time, the teenager 16%, and the elderly person 9%. Regarding the effective dimension, differences in four of the six classifications were found: professional help($\chi^2(N=2382)=11.06$, $p<.01$) with same age character seeking professional help 8% of the time, teens, 7%, and the elderly, 4%; friends ($\chi^2(2, N=2382)=14.52$, $p<.01$) with the same age character turning to friends 25% of the time, teens 24%, and the elderly 17%; relatives($\chi^2(2, N=2382)=16.54$, $p<.01$) with the elderly turning to relatives 19% of the time, same age 14% and teens 13%; and medical help($\chi^2(2, N=2382)=76.04$, $p<.01$) with the elderly turning to medical help 18% of the time, same age 8% and teens 5%.

Regarding type of adverse circumstances described, seven of the nine ineffective response comparisons were significant. Suicide differences were reported earlier, for the other six which differed: other aggression($\chi^2(2,$

N=2384) = 111.68, p<.01) showed the person with trouble at home being aggressive toward others 16% of the time, the accident victim considering aggression 7% of the time, and the sick person 2% of the time; depression(χ^2(2, N=2384)= 21.75, p<.01) with accident victim being depressed 10% of the time, the sick person 7% , and the troubled character 4%; escape(χ^2(2, N=2384)=833.46, p<.01) with the troubled character escaping 67% of the time, sick person, 10%, and the accident victim, 10% of the time; drug and alcohol (χ^2(2, N=2384)=58.40, p<.01) with the troubled person turning to drugs or alcohol 9% of the time, the accident victim 2% of the time, and the sick person 2% of the time; giving-up(χ^2(2, 2384)=12.73, p<.01) with the sick person giving up 11% of the time, the accident victim 10%, and the troubled person 6%; and, blind hope(χ^2(2, N=2384)=189.56, p<.01) with the accident victim having blind hope 27% of the time, the sick person 14%, and the troubled person, 3%. All six of the effective categories differed significantly according to the type of adverse circumstances: professional help(χ^2(2, 2384)=68.71, p<.01) with the character in interpersonal trouble turning to professional help 12% of the time, the accident victim 4% of the time, and the sick person 3% of the time; friends(χ^2(2, 2384) = 184.89, p<.01) with the accident victim turning to friends

38% of the time, the troubled person, 14%, and the sick person 13%; relatives($\chi^2(2, 2384)=143.20$, $p<.01$) with the sick person turning to relatives 25% of the time, the troubled person 16%, and the accident victim 4%; religion ($\chi^2(2, 2384)=28.30$, $p<.01$) with the sick person turning to religion 11% of the time, the accident victim 7%, and the troubled person 4%; skills/hobby($\chi^2(2, 2384) = 237.28$, $p<.01$) with the accident victim developing a skill/hobby 21% of the time, the sick person, 3% and the troubled person 2%; and medical help($\chi^2(2, 2384)=34.13$, $p<.01$) with the sick person seeking medical help 45% of the time, the accident victim 38% and the troubled person 18%.

For sex of character, two of the nine ineffective categorizations differed: escape($\chi^2(1, 2371) =4.66$, $p<.05$) with female characters engaging in more escape responses(32%) than male characters(28%) and blind hope($\chi^2(1,2371)= 5.02$, $p<.05$) with male characters engaging in more blind hope response(16%) than female characters(13%). Three of the six effective responses differed according to character sex: professional help($\chi^2(1, 2371)=9.82$, $p<.01$) with the female characters seeking professional help more often (8%) than male characters(4%); friends($\chi^2(1,2371)=7.39$, $p<.01$) with female characters turning to friends more often (24%) than male characters(19%); and medical help($\chi^2(1,2371)=$

6.18, $p<.05$) with female characters turning to medical help more often(12%) than male characters(9%).

Discussion

The study revealed that the methodology was effective in eliciting responses which reflected suicidal ideation. Forty-six percent of the subjects projected suicidal ideation onto the characters.

A number of findings related to quantitative and qualitative analysis of the data are of interest. However, space prohibits their elaboration. Still one in particular demands mention. Despite the fact that over forty-five percent of the subjects projected suicidal ideation onto the characters, only six percent of the respondents indicated that the subject would be considering any type of professional counseling. This may well indicate that we need to make our help more physically and psychologically accessable to persons experiencing adverse life circumstances.

Suicidal Ideation and Children

Each year over 6000 children and teenagers commit suicide. Suicide is now the second leading cause of death for youths aged 15-18. Suicide rates for children have never been higher. During the past two decades suicide rates for youth have increased over 300 percent.

Despite the importance of youthful suicide, empirical research regarding causes and associated factors is notably insufficient. The purpose of the research project summarized in this paper was to add to the body of knowledge related to youthful suicide. More specifically, the focus was to explore factors associated with suicidal ideation in children.

It is only recently that researchers have begun to recognize the suicidal risk of young children. It has not been until the past twenty years that we have come to accept the concept that children under nine years of age can be depressed(Toolan, 1981). If we do not recognize that children can be depressed, it is difficult to accept that they can be at suicidal risk.

The preceding and a number of other factors have contributed to our underestimating the suicidal risk of

children(Bailey and Hernandez, 1983). Not the least of these factors are the reports of epidemiological researchers who, because the officially recognized suicide rates per 100,000 children are relatively low, tend to ignore the problem of children's suicide. For example, Schneidman(1976) states, ". . . suicide rates for children under age 10 are negligible. Low yes, but negligible!

There are a number of practical and ethical complications related to research on children's thinking regarding suicide. The researchers were sensitive to the possibility that interviews with children where they would be directly queried as to their opinions related to suicide, might lead to a situation where we introduce the concept of suicide as an option to the child. Therefore, a more indirect assessment approach was decided upon. The method used involved presenting a short scenario concerning a character in an adverse life circumstance and recording the frequency at which children spontaneously indicated that the character might be thinking about suicide.

The research was designed to provide data concerning the age at which children would view suicide as an option which persons in an adverse circumstance would consider. Data concerning both the range and frequency of projected suicidal ideation was also available.

In addition to the preceding analyses, comparisons were made between children from small, relatively isolated schools and children from larger school districts. Given the isolation and the pressures from restrictive peer group choices, it was hypothesized that children from smaller communities would project more suicidal ideation.

A third data set which was available was a more direct assessment of past suicidal thinking. The methodology for this portion of the research is described later in the paper. Given the exploratory nature of this segment of our research, no hypotheses were made in regard to anticipated findings. Still this research was viewed as extremely important, because to our knowledge, this is the first study which provides research data concerning degree of suicidal thinking of a non-clinical population of pre- and early teenage children.

METHOD

Subjects

The subject population consisted of1182 children three through nineteen years old. Three independent samples were available for analysis. Sample 1 consisted of 855 children from grades one through twelve, drawn from a single school district. Sample 2 consisted of one hundred eighty-four

high school seniors. Subjects for the second sample were drawn from a community of under one thousand persons(42 subjects), a community of approximately six thousand persons (54 subjects) and a community of approximately twenty-five thousand persons(88 subjects). The third sample consisted of one hundred forty-three subjects, ages three through seventeen.

Procedure

One of eighteen different scenarios protraying a fictitious character who was experiencing a traumatic life circumstance was given to each subject. The subject was then asked to indicate three things the character was thinking about doing. The procedure was similar to that used by Bailey(1983). It differed from Bailey(1983) in that for Sample 1 the scenarios were read to the subjects and an experimenter recorded the subject's response. For Sample 2 the procedure was identical to Bailey(1983), i.e., the subjects read the scenarios and wrote their responses. For Sample 3, the subjects under nine years of age were read the scenarios by an experimenter and subjects ten and older responded to written scenarios. For Sample 3 the older subjects responded to a follow-up questionnaire which provided data regarding whether and under what circumstances the subject personally had thought about or engaged in each of

three responses they had earlier indicated the character was thinking about doing.

RESULTS

For Sample 1 chi-square analysis revealed two ages at which significant increases in rates of projected suicidal ideation occurred---one at the sixth grade($\chi^2(1)=6.09$, $p< .05$) and one at the ninth grade($\chi^2(1)=6.32$, $p <.05$). The data from Sample 1 showed that children as young as seven years of age projected suicidal ideation into the character.

Sample 2 data showed that community size was a significant factor affecting suicidal ideation. Students from the smaller communities projected significantly more suicidal ideation than students from the larger community($\chi^2(2) = 6.42$, $p<.05$). Next a chi-square analysis was run to determine the effect of the respondents sex on his/her probability of projecting suicidal ideation. The data revealed that females projected more suicidal thoughts than males($\chi^2(1) = 4.40$, $p<.05$). A third analysis related to the interaction of town size and subject sex. This comparison was also found to be signficant($\chi^2(5) = 33.74$, $p<.01$). This comparison revealed that all of the female subjects in the two smaller communities projected suicidal ideation onto the characters.

Sample 3 data was submitted to qualitative rather than quantitative analysis. The data showed self-destructive, if not suicidal thinking occurs in children as young as five years of age. Further, the data revealed that 43 percent of the subjects who projected suicidal ideation had personally thought about and/or considered suicide as a personal option.

DISCUSSION

The data from Sample 1 show that some children are aware of suicide at a relatively young age(7 years), and that by the sixth grade a significant number of them(15 percent) spontaneously project suicide as an option which a person in an adverse life circumstance would consider. By the time children have reached the ninth grade, over 40 percent of them are projecting suicide as an option and by the eleventh grade over 50 percent are projecting suicide as an option. The preceding indicates that we should become concerned about suicidal thinking in much earlier age groups than researchers have previously examined. The reader interested in an in-depth discussion of the findings of the Sample 1 data is referred to Holmes(1983) from whose research this data was drawn.

Sample 2 data revealed that young persons in isolated rural communities have a very high rate of projected suicidal

ideation. It would appear that the pressures and demand characteristics of small towns have an overwhelming impact on high school age females. An in-depth analysis of the Sample 2 data can be found by reading Elliot and Kline(1982) upon whose work the preceding finds are based.

The Sample 3 data is based on the work of Bailey, Holmes and Ligotino(1983), and Ligotino, Horton, and Bailey(1982). Additionally, Bailey and Bohn (1983) provided the data concerning the follow-up questionnaire related to actual suicidal thinking. The data from the very young children provided a number of indications that children as young as five are aware that persons in adverse life circumstances will consider engaging in self-destructive, if not auto-lethal, behavior. For example, one five-year-old pre-school girl after hearing a scenario responded, "She's gonna go home and poke her eyes out." Additionally the follow-up questionnaire revealed a number of instances where children indicated that they had personally considered suicide. For example one twelfth grade girl stated, " Well, one reason is that I thought that I had no reason to live. I felt like no one cared or loved me and I had no reason to be on the face of this earth."

The preceding finding again shows that more attention needs to be turned to the suicidal thinking of young chil-

children. The study reported here, while exploratory in nature, does show that methodologies are available which can aid this inquiry and that such an inquiry can be undertaken in a manner that avoids the potential problem of introducing suicide as a conceptual option for the subjects.

Suicidal Ideation and College Students

During the past twenty years there has been a steady and alarming increase in suicide amongst college students. Over four thousand the annual twenty-five thousand suicides in this country are in the fifteen to twenty-four age group (Shneidman, 1976., Hatton, Valente, Rink, 1977, Bassuk, Schoonover, Gill, 1982). And it has been estimated that suicide in this age bracket has risen 250% in the past 2 decades (Hendin, 1975).

Professionals working with suicide attempters have postulated why young adults are showing such an escalated preoccupation with their own extinction. They suggest that attempters have had a history of life where death, depression and misery have been built into their relationships with their parents (Shneidman, 1976). Many of these parents tend to deny and ignore children's emotional needs and demand unreasonable and sometimes impossible standards to which the children must live up. Gaining approval and acceptance is contingent upon accomplishing parental goals rather than for being good people. The unacceptance of failure and the frustration of and hostility toward their emotional needs often lead these children into isolation, lonliness and feelings of low self-worth. And, as young adults, they are drawn to a type of "numbness" as an existence (Hendin, 1975). Whenever new situations arise,

be it entering college, peer competition, graduation or finding new friends or careers, their security and unhealthy bond to their parents is threatened and students may become overwhelmed by suicidal desires. And, because they have difficulty communicating with others, by the time they attempt suicide they feel that there is no one for them to turn to for help.

Based on the assumption that students might have a difficult time communicating their own autolethal intent and because of the ethical problems associated with direct inquiries as to suicidal potential, an indirect methodology was used in the following study. This methodology allowed us to obtain information regarding suicidal thinking without directly introducing the topic of suicide to the respondents. The procedure called for the subject to indicate three things a fictional character experiencing an adverse life circumstance was thinking of doing. From this data we were able to determine the rates of projected suicidal ideation across various campus sub-populations.

While knowing whether a Fine Arts major versus a Business major project more suicidal ideation unto a character in adverse life circumstance does not tell which of the groups is at higher suicidal risk, it does allow one to gain some knowledge as to how these groups differ in regard to their feeling about how people should or do respond to

stressful circumstances. This information combined with data from other sources will hopefully provide framework for improved prediction of suicide risk.

Regarding the study at hand, the data allowed us to determine differential rates of predicted suicidal ideation across the subpopulations: Majors and Schools. In addition to projected suicidal ideation data across subpopulations, data was also available concerning whether effective versus ineffective responses were projected and the specific types of effective versus ineffective responses that occurred most frequently.

Method

Subjects

The sample in this study consisted of eight-hundred and eighty college students from Stephen F. Austin State University in Nacogdoches, Texas. These students ~~in the sample~~ were from the following schools: Science and Mathematics (159), Liberal Arts (185), Education (157), Applied Arts and Sciences (97), Business (157), Forestry (73), and Fine Arts (52).

Procedure

One of eighteen different scenerios portraying a fictitious character who was experiencing difficult life circumstances was given to each subject. The subject was

then asked to list three alternatives the character might be thinking about doing. This procedure was indentical to that used by Bailey (1983). Responses were scored on fourteen variables, which were in term scored on an effective versus ineffective dimension.

Results

The chi-square comparison was significant for the single response of suicide, $X^2 = (6, N = 880) = 32.59$, $p. < .01$. The highest rates of suicidal ideation were projected by Liberal Arts (77.3%) and Fine Arts (76.5%), while the lowest rates were projected by Education (51.6%) and Forestry (54.8%).

In comparing the schools on the effective-ineffective response dimension, the overall chi-square was significant, $X^2 = (6, N = 880) = 21.73$, $p < .01$. The overall effective response comparison between was significant, $X^2 = (6, N = 880) = 21.73$, $p < .01$. Applied Arts and Science and Business majors projected the highest rates of reliance on friends and others with 28.9% and 22.9% respectively. The lowest (6.8%) rate of reliance on friends and others was projected by people in the School of Forestry. This comparison was significant, $X^2 = (6, N = 880) = 19.72$, $p. < .01$. The only other significant effective response comparison was reliance on religion, $X^2 = (6, N = 880) = 17.27$, $p. < .01$. The highest (17.8%) rate of reliance on religion was projected by people in the School of Forestry, while people in the School of Applied

Arts and Sciences and Fine Arts projected the lowest rates with 1.0% and 3.8% respectively.

The overall ineffective response comparison was significant, $X^2 = (6, N = 880) = 19.33$, $p < .01$. In addition to the suicide comparison mentioned previously, four other individual ineffective response comparisons were significant. The comparison on the response of other agression achieved significance, $X^2 = (6, N = 880) = 13.60$, $p < .05$. People in the School of Applied Arts and Science projected the highest (16.5%) rates of other aggression while people in the School of Forestry projected the lowest (4.1%) rates. Another ineffective response comparison which produced significance was denial, $X^2 = (6, N = 880) = 23.84$, $p < .01$. The highest (5.8%) rate of denial was projected by people in the School of Fine Arts, while people in the Schools of Applied Arts and Science, Education and Science and Mathmatics projected no denial at all. An additional ineffective response comparison which produced significance was that of escape, $X^2 = (6, N = 880) = 16.46$, $p < .01$. People in the Schools of Education and Mathmatics and Science projected the highest rates of escape, with 22.3% and 21.0% respectively, The final ineffective response comparison which achieved significance was that of blind hope, $X^2 = (6, N = 880) = 15.03$, $p < .05$. People in the Schools of Applied Arts and Science and Science and Mathmatics projected

the highest rates of blind hope with 16.5% and 16.4% respectively, while people in the School of Education projected the lowest (4.5%) rate of blind hope.

Discussion

Analysis on the ineffective response of suicide demonstrated that this methodology is an effective illicitor of projected suicidal ideation. People in all schools spontaneously projected suicide as an option which a person in an adverse life circumstance would consider. It may be that demand characteristics present in following majors in the Schools of Liberal Arts and Fine Arts create a tendency for those students to project suicide at higher rates than those in other schools.

From the significance of the overall effective-ineffective response comparison, we may infer that differences which are interesting and possibly valuable exist between students of different schools. Similarly, the presence of these differences is also demonstrated by the significance of both the overall effective response comparison and the overall ineffective response comparison.

Students in some of the schools exhibited preferences for certain individual effective responses, but no clear preference for effective responses was exhibited by students of any school. This suggests that these preferences are idiosyncratic and do not reflect any true differences in

response styles between schools.

No clear overall preference for ineffective responses was exhibited by students of any school. However, students in the School of Forestry exhibited a clear tendency to reject ineffective responses.

Future research may help to determine if the relationship between school of study and projected suicidal ideation differs by location of school, urban or rural, and/or by classification level (Freshman, Sophomore, Junior, Senior).

It has been demonstrated in other studies in this symposium that the demand characteristics of certain professions influence the rates of projected suicidal ideation. Additional future research should explore the relationship of demand characteristics inherent in following majors in the schools to projected suicidal ideation.

Suicidal Ideation and Community Groups

It is widely known that males and females exhibit differences in the rates at which they attempt and commit suicide (Rathus and Nevid, 1980). Much speculation has surrounded these differences and potential reasons for them, however, little examination of antecedent differences in suicidal thinking has been attempted.

The same is true for elderly persons, although at least some speculation as to the preceding events is available (Dunlop, 1979). Although much is known about the suicide rates of the elderly, and although the rates appear to be dropping (APA Monitor, 1984), little is known about suicide prior to or in the absence of attempted or completed suicide.

Likewise, little, other than the effects of socioeconomic status (SES) on the rates of completed suicide, is known of the relationship between economics and suicide. Marks (1980) and others have emphasized the importance of socio-economic status considerations, however, no research has been done on the thinking of the people in high and low SES groups prior to or in the absence of attempted or completed suicide.

This study was designed to examine the thinking of some of the people in these various groups via their projection or non-projection of suicidal ideation onto a scenario character. It is possible that the reactions of the various community groups to the adverse life circumstances presented in the scenarios will help to shed some light on their respective differences in suicidal ideation under various adverse conditions.

Method

Subjects

The female sample consisted of twelve-hundred and ninety females from all subpopulations studied in this project. They were compared to a sample of one-thousand and eighty-one males from the same subpopulations.

The elderly sample was composed of fifteen elderly persons from in and around Nacogdoches, Texas. They were compared to a sample of one-hundred and fifteen people from the same communities.

Sixty persons of low socio-economic status (SES) from the general community were compared to a sample of seventy-seven persons of high (SES) socio-economic status from the community. These samples were obtained through a stratified random sample taken from the Nacogdoches area.

Procedure

One of eighteen different scenarios portraying a fictitious character who was experiencing traumatic life circumstances was given to each subject. The subject was then asked to list three possible alternatives to the problem in the scenario. This procedure was identical to that used by Bailey (1983). Responses were then scored on fourteen variables, which were in turn scored on an effective versus ineffective response dimension.

Results

When the data was analyzed by the sex of the subjects along the ineffective response dimension, two of the nine possible comparisons were significant. Females projected escape at a significantly greater rate than males, ($\underline{X}^2$ (1, $\underline{N}$=2371) = 5.02, $\underline{p} < .05$). As for the effective response comparisons, three of the six were significant. Females projected reliance on professional help, ($\underline{X}^2$ (1, $\underline{N}$ = 2371) = 9.82), $\underline{p} < .01$), friends and others ($\underline{X}^2$ (1, $\underline{N}$ = 2371) = 7.39, $\underline{p} < .01$), and medical help ($\underline{X}^2$ (1, $\underline{N}$ = 2371) = 6.18, $\underline{p} < .01$) more often than males.

When elderly subjects were contrasted with subjects from the general community, two of the nine possible ineffective response comparisons were significant. Elderly subjects projected significantly more denial ($\underline{X}^2$ (1, $\underline{N}$ = 130) = 4.45, $\underline{p} < .05$) and significantly less escape ($\underline{X}^2$ (1, $\underline{N}$ = 130) = 2.26, $\underline{p} < .05$) than subjects from the general community. One of the six possible effective response comparisons was significant--the elderly subjects projected reliance on religion at a significantly greater rate than subjects from the general community, ($\underline{X}^2$ (1, $\underline{N}$ = 130) = 5.74, $\underline{p} < .01$.

Finally, when subjects were separated into groups of high and low socio-economic status, one of the nine possible ineffective response comparisons was significant. That comparison was the response of suicide. The high SES group projected suicide significantly more often than the low SES group, ($\underline{X}^2$ (1, $\underline{N}$ = 137) = 13.95, $\underline{p} < .01$.) Also, two of the six possible effective response comparisons between SES groups were significant. The low SES group projected reliance on

friends and others ($\underline{X}^2$ (1, $\underline{N}$ = 137) = 15.07, $\underline{p} < .01$) and on religion ($\underline{X}^2$ (1, $\underline{N}$ = 137) = 5.80, $\underline{p} < .01$) significantly more often than the high SES group.

Discussion

In this study, females were similar to males in their rates of projection of ineffective responses, including suicide. They did, however, project more escape (32% vs. 28%) and less blind hope (13% vs. 16%) than the males. Females did exhibit a greater tendency to project effective responses onto the characters including, reliance on professional help (8% vs. 4%), friends and others (24% vs. 19%) and medical help (12% vs. 9%). There were two differences in projection rates between the elderly persons and the community members on the ineffective responses. Elderly persons projected more denial (13% vs. 1%) and less escape (0% vs. 32%) than the community members. This may be because the different means of escape are less available to the elderly persons and so they react to trauma with denial. The only difference between the groups in their tendencies to project effective responses was on the response or selection of religion. Elderly people projected more religion (60% vs. 26%) than people from the community. This probably reflects the fact that religion is a more important aspect in the life of elderly persons than for persons in the general community.

Lastly, there was almost no difference between groups of high and low socio-economic status in their rate of projection of ineffective responses. The single difference in

this area was that persons of low socio-economic status projected suicide less often (30% vs. 64%) than persons of high socio-economic status. Future research will help to determine the reliability of this finding as well as some potential explanations of it. The low socio-economic status group also projected certain effective responses more often than the high socio-economic group including, reliance on friends and others (32% vs. 5%) and on religion (20% vs. 5%). These effective alternatives may be seen as more available to the low socio-economic status group than some of the other effective responses, and this may account for their differential projection by the low SES group.

Suicidal Ideation and Religious Conviction

The likelihood that an individual may behave suicidally is commonly believed to be affected by that person's religious beliefs(Lester, 1972). This commonly held assumption whether it is myth or fact, could be associated with the strong religious tradition which regards suicide as sinful. This position has been held for centuries by defenders of the Judeo-Christian faiths.

St. Augustine helped establish the Catholic position with two fundamental objections to suicide. One of these objections is dependent on an article of faith that is not shared by all followers of the Judea-Christian tradition; this is that suicide eliminates the opportunity to repent of other sins. However, the other objection appears to be equally applicable to every person who believes in the Ten Commandments. The sixth commandment declares"Thou shalt not kill." Suicide is not exempt from this commandment.

Individuals who accept the religious tradition which views suicide as sinful might therefore be expected to behave less suicidally than others in our society. In that case, a negative correlation would exist between religious involvement and suicidal behavior. However, the literature seems to disagree with the belief that religion

is a deterrant to suicidal behavior.

Benjamin Beit-Hallami found in his(1975) review of the literature that religious affiliation as an individual factor is of little use in predicting individual suicidal behavior. He also found that the degree of a person's religious involvement was not predictive of non-lethal suicidal behaviors. However, Miller(1979) notes that Protestants have higher suicide rates than Jews, who have the lowest, and Catholics, who rank in between them. Miller also mentions the difficulties inherent in defining precisely what is a Jew, a Catholic, or a Protestant.

The following study examined projected suicidal ideation as a function of religious comittment. While it can not be assumed that a person's projection of suicide onto another suggests the potential to consider suicide as an option for him or herself, it still provides some insight into a person's thinking regarding suicide. Since the higher reported suicide rates of Protestants are open to question, any difference in suicidal ideation between them and members of the general population may shed light on avenues where future research should be directed. For the following research, members of a Fundamental Protestant denomination were compared to a sample of people from the communities in and around Nacogdoches, Texas, to find out if a difference existed in

the amount of suicidal ideation the group members projected onto a scenario character, and the direction of that difference. The general effectiveness of the responses projected by the individuals in each group was also rated in order to examine and contrast their general styles or patterns of responding.

Method

Subjects

The religious sample consisted of forty-two members of a Church of Christ congregation who were present at a weekend religious retreat. They were also residents of the Nacogdoches, Texas area.

The community sample consisted of eighty-eight people from the communities in and around Nacogdoches, Texas. It included people from business and community-service organizations as well as residents from several neighborhoods.

Procedure

One of eighteen different scenarios portraying a fictitious character who was experiencing difficult life circumstances was given to each subject. The subject was then asked to list three possible alternatives to the problem in the scenario. This procedure was identical to that used by Bailey(1983). Responses were scored on fourteen different

variables, which were in turn scored on a dimension of their effectiveness or ineffectiveness.

Results

The difference in projected suicidal ideation between the religious and community samples was not significant, χ^2 (1, N=130)=1.70, N.S. The people in the religious sample projected suicidal ideation at a rate slightly higher (57% vs. 43%) than those in the community sample.

The overall comparison between samples on the dimension of effectiveness versus ineffectiveness of response was significant, χ^2 (1, N=130)=10.70, $p<.01$. The community sample projected ineffective responses at slightly lower overall rates and effective responses at higher rates than the religious sample.

The overall ineffective response comparison between the samples was non-signficant, χ^2 (1, N=130), = 3.78, N.S. The religious sample projected ineffective responses at a slightly higher rate(13% vs. 10%) than the community samples, however,none of the individual ineffective response comparisons were significant.

Regarding the effective responses it was found that the religious sample responded with effective projections at lower overall rates(12% vs. 21%) than the community sample. This difference was significant, χ^2 (1, N=130)=

11.21, $p < .01$, however, again none of the individual response comparisons were found to be significant.

Discussion

The results of this study show that suicidal ideation was projected onto the scenario characters at almost equal rates by the people in both samples. This finding in regard to suicidal ideation is comparable with actual suicidal behavior, as reported by Beit-Hallahmi(1975).

It was inferred that the significant overall chi-square on the ineffective-effective response dimension was a result of the fact that community people generally chose effective response over ineffective ones. This was also demonstrated by the significance of the overall effective response chi-square, although none of the individual effective response comparisons were significant. Similarily none of the individual ineffective response comparisons were significant, although the overall ineffective response comparison achieved borderline significance. The religious sample projected ineffective responses at a slightly greater overall rate than the community sample, an interesting finding considering the religious orientation of these people.

Future research will help to clarify several issues such as the relationship of suicide to suicidal ideation mentioned previously, and the status of "blind hope" as an

ineffective response. Some responses projected by the religious sample could be viewed as belief in or reliance on miracles, and were therefore classified under the ineffective response of "blind hope" in this study. The validity of this classification is questionable since belief in miracles is considered to be not only legitimate, but of primé importance in most religions, making these beliefs effective responses for religious people.

Other potentially interesting areas of future research include comparisons between various Protestant denominations, between branches of other religions and between clergy and lay-people of all religions. Also a religious status rating scale would be useful to more reliably determine religious affiliation and involvement for a more accurate sampling in studies of this kind.

Suicidal Ideation and Mental Health Clients

Most people believe that mentally ill persons are at a higher risk to commit suicide than other persons. It is a common belief that most mental patients are unstable and unable to cope with every day problems. Winokur and Tsuang (1975) conducted a study in Iowa of mentally ill patients. In the long-term follow-ups, suicide accounted for thirteen percent to sixteen percent of the total deaths of the mentally ill population. In short term follow-ups it accounted for a startling thirty-five percent to sixty percent of the deaths. This supports the idea that the mentally ill are at a high risk for committing suicide both shortly after their initial contact with a treatment system and later on in their lives. While the preceding finding indicates that mentally ill persons are at high suicide risk, it does not in any way prove that persons who commit suicide are mentally ill. For example, Herjanic and Meyer (1976) concluded that most suicide victims had not shown psychiatric disturbances prior to their death and less than twenty percent had previously had mental health treatment.

Previous research has shown that suicidal thinking is fairly prevalent in the population at large. For example, Cavan (1965) found that of one-hundred and thirty-four young persons from varying backgrounds, eighty percent had at some

time wished for death while approximately nineteen percent had never thought of suicide. Little is known, however, concerning the degree and nature of suicidal thinking in client populations.

Given the high risk for suicide of mentally ill persons and the paucity of knowledge concerning their level of suicidal thinking, the following research was undertaken. However, given the dangers and problems associated with a direct inquiry regarding suicidal ideation, an indirect methodology was used. In this methodology, suicidal ideation was determined through the subjects' likelihood of projecting suicide as an option for a fictional character in an adverse life circumstance. In the study, a mental health client sample and a random sample of persons from the same community were compared in regard to their tendency to project suicidal ideation onto others. A sample of released state hospital patients living in a half-way house served as the mental health client sample. In addition to testing as to whether the clients considered suicide as an option to an adverse situation more frequently than the community sample, several other questions were addressed.

Method

Subjects

The sample of mentally ill persons consisted of thirty-two mental health clients. The clients were residents at a half-way house in Nacogdoches, Texas. The community sample consisted of one-hundred and thirty people from business,

religious and community-service organizations, as well as residents from several different neighborhoods within the Nacogdoches community.

Procedure

One of eighteen different scenarios portraying a fictitious character who was experiencing difficult life circumstances was given to each subject. The subject was then asked to list three alternatives the character was thinking about doing. This procedure was similar to that used by Bailey (1983). It differed from Bailey (1983) in that for the mental health clients, the scenarios were read to the subjects and an experimenter recorded the subjects' responses. Responses were scored on fourteen variables, which were in turn scored on an effective versus ineffective dimension.

Results

An analysis of the sample of mental health clients and the sample of community members demonstrated a significant difference in projected suicidal ideation ($\underline{X}^2 = 7.68$, df1, $\underline{p} < .01$). Forty-eight percent of the community sample and nineteen percent of the mental health clients responded to the scenarios with suicidal ideation at least once.

The subject responses were broken down into two categories; effective and ineffective. The effective responses were positive and useful while the ineffective were more

negative and possibly harmful responses. The chi square comparison of the effective and ineffective responses between the two samples was nonsignificant.

The only ineffective response which differed between the two samples related to blind hope ($\underline{X}^2$ = 11.52, df1, $p < .01$). Twenty-two percent of the mental health clients relied on blind hope as a response as compared to three percent of the community sample.

Another chi square analysis of interest related to turning to friends for help. Thirty-seven percent of the mental health clients projected responses of appealing to help from friends. Whereas twenty-one percent of the community sample indicated the character in the scenario would turn to friends for help. The chi square was ($\underline{X}^2$ = 3.93, df1, $p < .05$.

Discussion

The procedure used in this study proved to be effective in eliciting projected suicidal ideation in both the mental health clients and the community sample. Mental health clients projected suicide less often than community members proposed suicide as a solution at a much higher rate (48%) than the clients (19%). This proves to be an interesting comparison considering that the clients are believed to be at higher suicidal risk, and one would assume they think about suicide more frequently. Whether the results obtained are an indication that the preceding assumption is inaccurate, or indicate that the methodology is inappropriate for testing suicidal thinking, or is a reflection of defensiveness

on the part of mental health clinets, or is an artifact of some other unidentified variables remains to be tested through future research.

Overall, the clients expressed a positive but unrealistic approach to the scenarios. The clients are more likely than persons in the community to see persons in adverse life circumstances as turning to friends in times of need; also, the clients project solutions which are more likely to be based on blind hope. These findings, perhaps in part, reflect the clients' unrealistic view of the world.

A final result worth mentioning is the clients' refusal to be seen as having a "negative attitude." For example, during a conversation which followed one client's response on the scenario the client stated, "That girl may be thinking of suicide but I didn't write it because that's a negative attitude, and that's not good, right?" While systematic data was not obtained regarding this response, several other clients expressed similar feelings about not wanting to show negative attitudes.

Future research into the reasoning behind the clients' responses may prove to be helpful. The questions remain to be answered, whether the clients possess an unrealistic view of the world or whether they respond according to what they believe others would like to hear. Also, research needs to be done to determine whether and to what degree actual suicidal thinking varies across client and community populations.

Suicidal Ideation and Human Services Providers

Psychiatrists have traditionally been viewed as having higher suicide rates than the general public (Ross, 1973; Daubs, 1973; Holmes and Howard, 1980; Rockwell, 1981). However, Bergman (1979) claims that no true differences in suicide rates between physicians of any specialty and the population as a whole exist. He bases this conclusion on an exhaustive critique of suicide literature.

Despite Bergman's criticisms, the weight of evidence supports the conclusion that psychiatrists and other persons in human services professions have suicide rates which reflect significant risk. Being in frequent contact with disturbed persons, having clients who have attempted suicide, having had clients who committed suicide, having access to lethal medications, and the generally stressful nature of their jobs are factors which affect the suicide potential of human services providers. These conditions would also affect the way in which providers view the suicidal risk of people in general. Specifically, the providers may be more likely to see others as being at suicidal risk than they are.

In this study a human services provider population

consisting of persons working for a Community Mental Health, Mental Retardation Center was examined in regard to their tendency to project suicidal ideation onto others. We were interested in finding out whether working in such a human services setting would affect how the staff perceived the suicidal risk of other persons. Basically, we wanted to know the frequency that the MHMR center personnel would view a person in an adverse situation as thinking about suicide.

The design allowed comparisons to be made between the Community MHMR sample and a general population sample. Here it was hypothesized that the MHMR personnel would evidence more projected suicidal ideation than the general community.

In addition to the preceding comparisons, differences were expected between the community sample and the MHMR provider sample on the dimension of effectiveness or ineffectiveness of the scenario character's response. That is, we hypothesized that MHMR personnel would see the scenario characters as engaging in less effective behaviors than persons in the general public.

The design also allowed us to compare subjects

across personnel classifications and service emphasis. That is, we were able to determine whether persons working in mental retardation programs, a group which would seldom be exposed to suicidal clients, would differ from personnel working with mentally ill persons. Also we were able to compare persons working in positions which were largely clerical and administrative, to those working in direct services. Each of these three groups are under different types of stress and has varying contact with persons who are suicidal, and therefore were expected to differ in the degree of suicidal ideation which they projected.

Method

Subjects

The MHMR sample consisted of seventy workers at a community mental health-mental retardation center. This sample consisted of mental health providers, mental retardation providers, clerical personnel and administrators. The community sample consisted of one-hundred and thirty people drawn from a stratified random sample of persons living in communities similar to those of the MHMR personnel. Included in this sample were people from business, religious and community-service organizations, as well as residents

from several different neighborhoods.

Procedure

One of eighteen different scenarios portraying a fictitious character who was experiencing difficult life circumstances was given to each subject. The subject was then asked to list three possible alternatives to the problem in the scenario. This procedure was identical to that used by Bailey (1983). Responses were scored on fourteen variables, which were in turn scored on an effective versus ineffective response dimension.

Results

The difference in projected suicidal ideation between the MHMR and community samples was significant, X^2 (1, $\underline{N}$ = 200) = 6.18, P<.01. Sixty-seven percent of the MHMR sample projected suicidal ideation onto the scenario characters, while forty-eight of the community sample did so.

In comparing the MHMR and community samples on the effective-ineffective response dimensions, the overall Chi Square was significant, X^2 (1, $\underline{N}$ = 200) = 19.13, p<.01. The MHMR sample was less likely to project effective responses onto the characters and more likely to project ineffective responses. These findings were

also demonstrated in the separate ineffective and effective comparisons. Additionally, a number of significant differences were found in the within MHMR comparisons

Discussion

The subjects in both the MHMR and the community samples projected suicidal ideation onto the scenario characters who were experiencing adverse life circumstances, thus showing that this methodology is effective in eliciting such projections. The difference in projected suicidal ideation was in a direction consistent with that predicted in the introduction. That is, the MHMR workers projected significantly more suicidal ideation than the community members. They also projected more ineffective responses and fewer effective responses than the community members. Interestingly, the only effective response chosen by more MHMR workers than community members was the usage of professional help-their own services!

It is possible that the differences in projected suicidal ideation are reflections of reported suicide rates for these groups, or alternatively, they may be a reflection of the way the providers perceive other

people. Future research will help to determine if and to what extent people who project suicidal ideation in situations such as those in this study may actually be considered "at risk" for suicide. This is central to the proper usage and interpretation of data collected, as well as for those trying to understand the relationship between suicidal ideation and suicidal behavior in individuals.

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